

### AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A method for correcting speed feedback in a ~~synchronous permanent magnet~~ drive motor for imparting accurate upward and downward travel to a load, the steps comprising:

measuring a speed value of the ~~synchronous permanent magnet drive~~ motor by a feedback sensor;

provide speed references for upward and downward constant-speed travel;

detecting a plurality of speed measurements for upward constant-speed travel;

detecting a plurality of speed measurements for downward constant-speed travel;

averaging the plurality of speed references and measurements for upward and downward constant-speed travel;

~~calculating averages of a speed reference and a speed measurement for downward and upward constant speed travel;~~

identifying a ~~gain factors~~ factor from said calculated averages of said speed references and speed measurements for downward and upward constant-speed travel;

identifying a zero factor from said calculated averages of said speed references and speed measurements for downward and upward constant-speed travel; and

correcting the measured speed value utilizing said gain and zero factors to compensate for drift in the feedback sensor.

2. (Currently Amended) The method according to claim 1, wherein the averages of the speed values of speed reference and speed measurement are calculated using a sum of the speed values and a total number of samples of the speed values.

3. (Currently Amended) The method according to claim 2, wherein the gain factor and zero factor are identified each time the averages of the speed values of speed reference and speed measurement are calculated.

4. (Previously Presented) The method according to claim 3, wherein the gain factor and zero factor are updated by a forgetting factor.

5 (Previously Presented) The method according to claim 3, wherein the gain factor and zero factor are updated by an exponential forgetting factor.

6. (Previously Presented) The method according to claim 4, wherein, by applying the forgetting factor, measurement samples of recent history are weighted greater than earlier measurement samples.

7. (Previously Presented) The method according to claim 1, wherein the method is adaptive to continuously update parameters for correcting said measured speed value.

8. (Currently Amended) The method according to claim 1, wherein the ~~synchronous permanent-magnet-drive~~ motor is operatively incorporated as part of an elevator drive machine.

9. (Currently Amended) An apparatus for correcting measured speed feedback, the apparatus comprising:

a measuring unit for measuring a speed value of a ~~synchronous-permanent-magnet-drive~~ motor;

a calculating unit for calculating averages of a speed reference and a speed measurement from the measured speed value;

an identifying unit for identifying a gain factor and a zero factor; and

a correcting unit for compensating a drift in the measuring unit, the correcting unit compensating for the drift on the basis of the average of the speed reference, the average of the speed measurement, the identified gain factor, the identified zero factor, and on the basis of a forgetting factor.

10. (New) The method of claim 1, wherein the drive motor is a synchronous permanent magnet drive motor.
11. (New) The method of claim 1, wherein the sensor is a tachometer.
12. (New) The apparatus of claim 9, wherein the drive motor is a synchronous permanent magnet drive motor.
13. (New) The apparatus of claim 9, wherein the sensor is a tachometer.